

SEQUENCE LISTING

<110> BEASLEY, ELLEN M.

<130> ISOLATED HUMAN SECRETED PROTEINS,
NUCLEOTIDE AND AMINO ACIDS ENCODING HUMAN SECRETED PROTEINS, AND
USES THEREOF

<130> CI001229

<160> 7

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 1722

<212> DNA

<213> Human

<400> 1

```

ttgtcactg ctacacacac ttgtgtgtgc atgaggacac ttggggccct cctcttctct 60
ctggggggtcc ttgggggacct cactgagatg ttgtgaaatac cagagatgga cagccatctg 120
gtagagaagt ttggccagca cctcttacct ttgatggacc ggcttctcct ggagcacttg 180
aacccagca ctatgttggg ctacggctc tccagtctgc aggtctggac caaggaagac 240
ctctacctgc acagcctcaa gcttgggtac cagcagtgc tctaggggtc tgcctttagc 300
taggttgacg gtgactgcca gggcaagcct tccatgggac agctgggacct ctacctgtc 360
gtctcagag ccaactgtga gtttgtcagg ggccacaagg gggacaggt ggtctcacag 420
ctcaaatgtg tctggagga ttgagaagaga ggcattgaca cagcagcat ggcagggtt 480
gcattcacct gtctgaagcg ctcaaaacttc aacctgtgtc ggagacaaac gatcaccatg 540
gcctcagaa cagtgcgaga ggagatcttg aaggccsaga cccccgaggg ccactttggg 600
gaagtctaca gcaacacatt ggcattacag tctctcatga ctctcccat gcttgggcca 660
gaactgggaa gacatgtct caaggcgagg ctgtgttttg ttggcagttt gacggtatga 720
gccttcagaa atgctctcat gatttccag ctgtctgccc ttctgaaaca caagaactac 780
attgatctga tcttccagga ctgtctggca ccacgagtca tgttggaaac agctgtctgag 840
acattctctc agacacaaga gatcatcagt gtccagctgc agttgcttag tctcttggcg 900
cgttcagac agtccatctc tgttctggcc ggttccaccg ttggaagatgt cctgaagaag 960
gcctatgagt taggaggatt cacatatgaa acacaggcct ccttgtcagg cccctactta 1020
acctctgtga ttgggaaaag ggccggagaa agggagttct ggcagcttct ccgagacccc 1080
aacacacac ttgttgcaag tattgtgac tacagaccca aggtatgaga aacatttga 1140
ctgaggctgg ttgagtgtta gccctgagc tccctcatcc cagcagcctc gacacttcc 1200
taggtctcta cctcctctc ttatgttccct ggaacaggaa ctgcctgac cctgtctgca 1260
ctctctgtgc atttgaaga atgccccttg ggatcacccc agccacaagc ccttcgaggg 1320
ccttatacca ttggcaacat ttggagcagag agccaaagcat ctctccttgg aagtcttct 1380
ggccagtctt ggccagcttg gccctgaggg tctcccatga aggcacaccc atggtctgat 1440
ggcctatgaag catctcagac tcttggcaa aaaaaggagt ccgcaggccg caggtgttgt 1500
gaagacacac cgttctgttg ttgggttctt gcaagaaggc ctactcagcc cgggggctat 1560
ggccttgacc ccagctctct antctgtctg tagagtggca gctccagact ggttctgtga 1620
cagtacttgg ggagacctca gcaggcctgc tcaagtgcctg cctctgacaa aattaaaaga 1680
ttgatggcct gtgaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 1722

```

<210> 2

<211> 1896

<212> DNA

<213> Human

1400 > 2

```

ggagatttca ttagtgacac gaagatgggt ctctgggagt ggtgacacag tttgttcaag 60
agagcttagc caggggccagc cttaggagtc ttctccgatt cttgtccact gctcacccac 120
ctgctcctgc catgaggga ctttgggctt tctcttctt tctgggggtc ctggaggga 180
cactgaatgt gtgtgaaatc ccagagatgg acagccatct ggtagagaag ttgggcccag 240
acctttacc ttggatggac cgggtttccc tggagcaatt gacccccagc atctatgttg 300
gctaacgctt ctccagtctg caggttggga ccaagggaag cctctacctg cacagcttca 360
tctttggtta ccagcagtgc ctctagggtt ctgctttcag ccaggtatgac ggtgactgc 420
agggcaagcc ttccatgggc cagctggccc tctacctgtt cgtctctcaga gccaactgg 480
atgatacaaa gggccacccc cacactagct actaccagta tggcctgggc attctggccc 540
tgtgtctaca ccagaagcgg gtccatgaca ggttggttga caaacttttg tatgtgttgg 600
aaattttaca ccaggggccac cattctgttg acacagcagc catggcaggc ttggcattca 660
cctgtctgaa ggcctcaaac ttcaaccttg gtccggagaca accgatcacc atggccatca 720
gaacagtgcg agaggagatc ttgaaggccc agacccccga gggccacttt gggaatgtct 780
ccagccccc attggcatta cagttcttca tgaattcccc catggctggg gcagaacttg 840
gaacagcatg tctcaaggcg aggtttggtt tcttggccag tctgcaggat ggagccctcc 900
gaatgtctt catgatttcc cagctgttgc cgtttctgaa ccacaagacc tatattgac 960
tatcttccc agactgtctg gcaccacgag tcatgttga accagttgtt gagaccatc 1020
ccagaccaca agagatcctc agtgtccagc tgcaggtgtt tagtctcttg ccgcctgaca 1080
ccagctccat ctctgttctg gcgggttcca cgttgggaag tctcctgaag aaggcccatg 1140
ctttaggagg attcacatat gaaacacagg cctccttctc aggcctctac ttaacctccg 1200
ctatggggaa agcggccgga gaaagggagt tctggcagct tctccgagac cccaacccc 1260
cctgttggca aggtattgtt gactacagac ccaaggatgg agaaaacatt gagctgagc 1320
tgttagctg gtageccctg agtcccttca tcccagcagc ctgcacact cctaggtt 1380
ccacctccc cctgatgtc cctgggaacag gaactcgtt gacctgtctg ccacctctg 1440
tgcacctga gcaatgcccc ctgggattcc ccagccaca agcctctcga ggccctata 1500
ctatggccca ccttggagca gagagccag catcttccct gggaagtctt tctggccaag 1560
cttggccagg ctggccctgc aggtcttcca tgaaggccac ccctatggtt gatgggcatg 1620
agcatctca gactccttgg caaaaaacgg agtccgcagg ccgcaggtgt tctgaagacc 1680
actcgttctg tggttgggtt cctgcaagaa ggcctcctca ggcggggggc tatggccctg 1740
cctcagctc tccactctgc tgttagagtg ccagctccga gctgggttgc gcacagtage 1800
ctgggagacc tcagcagggc tctcagtgct ctgcctctga caaaattaca gcattgatgg 1860
cttggaaca aaaaaaaaaa aaaaaaaaaa aaaaaa 1896

```

1410 > 3

1411 > 376

1412 > PERT

1413 > Human

1400 > 1

```

Met Arg His Leu Gly Ala Phe Leu Phe Leu Leu Gly Val Leu Gly Ala
1      5      10      15
Leu Thr Glu Met Cys Glu Ile Pro Glu Met Asp Ser His Leu Val Glu
20     25     30
Lys Leu Gly Gln His Leu Leu Pro Trp Met Asp Arg Leu Ser Leu Glu
35     40     45
His Leu Asn Pro Ser Ile Tyr Val Gly Leu Arg Leu Ser Ser Leu Gln
50     55     60
Ala Gly Thr Lys Glu Asp Leu Tyr Leu His Ser Leu Lys Leu Gly Tyr
65     70     75     80
Gln Gln Cys Leu Leu Gly Ser Ala Phe Ser Glu Asp Asp Gly Asp Cys
85     90     95
Gln Gly Lys Pro Ser Met Gly Gln Leu Ala Leu Tyr Leu Leu Ala Leu
100    105    110
Arg Ala Asn Cys Glu Phe Val Arg Gly His Lys Gly Asp Arg Leu Val
115    120    125
Ser Gln Leu Lys Trp Phe Leu Glu Asp Glu Lys Arg Ala Ile Asp Thr

```

139 139 140
 Ala Ala Met Ala Gly Leu Ala Phe Thr Cys Leu Lys Arg Ser Asn Phe
 145 150 155 160
 Asn Pro Gly Arg Arg Gln Arg Ile Thr Met Ala Ile Arg Thr Val Arg
 165 170 175
 Glu Glu Ile Leu Lys Ala Gln Thr Pro Glu Gly His Phe Gly Asn Val
 180 185 190
 Tyr Ser Thr Pro Leu Ala Leu Gln Phe Leu Met Thr Ser Pro Met Arg
 195 200 205
 Gly Ala Glu Leu Gly Thr Ala Cys Leu Lys Ala Arg Val Ala Leu Leu
 210 215 220
 Ala Ser Leu Gln Asp Gly Ala Phe Gln Asn Ala Leu Met Ile Ser Gln
 225 230 235 240
 Leu Leu Pro Val Leu Asn His Lys Thr Tyr Ile Asp Leu Ile Phe Pro
 245 250 255
 Asp Cys Leu Ala Pro Arg Val Met Leu Glu Pro Ala Ala Glu Thr Ile
 260 265 270
 Pro Gln Thr Gln Glu Ile Ile Ser Val Thr Leu Gln Val Leu Ser Leu
 275 280 285
 Leu Pro Pro Tyr Arg Gln Ser Ile Ser Val Leu Ala Gly Ser Thr Val
 290 295 300
 Glu Asp Val Leu Lys Lys Ala His Glu Leu Gly Gly Phe Thr Tyr Glu
 305 310 315 320
 Thr Gln Ala Ser Leu Ser Gly Pro Tyr Leu Thr Ser Val Met Gly Lys
 325 330 335
 Ala Ala Gly Glu Arg Glu Phe Trp Gln Leu Leu Arg Asp Pro Asn Thr
 340 345 350
 Pro Leu Leu Gln Gly Ile Ala Asp Tyr Arg Pro Lys Asp Gly Glu Thr
 355 360 365
 Ile Glu Leu Arg Leu Val Ser Trp
 370 375

C101: 4
 C111: 400
 C121: PRT
 C213: Human

C400: 4
 Met Arg His Leu Gly Ala Phe Leu Phe Leu Leu Gly Val Leu Gly Ala
 5 10 15
 Leu Thr Glu Met Cys Glu Ile Pro Glu Met Asp Ser His Leu Val Glu
 20 25 30
 Lys Leu Gly Gln His Leu Leu Pro Trp Met Asp Arg Leu Ser Leu Glu
 35 40 45
 His Leu Asn Pro Ser Ile Tyr Val Gly Leu Arg Leu Ser Ser Leu Gln
 50 55 60
 Ala Gly Thr Lys Glu Asp Leu Tyr Leu His Ser Leu Met Leu Gly Tyr
 65 70 75 80
 Gln Gln Cys Leu Leu Gly Ser Ala Phe Ser Glu Asp Asp Gly Asp Cys
 85 90 95
 Gln Gly Lys Pro Ser Met Gly Gln Leu Ala Leu Tyr Leu Leu Ala Leu
 100 105 110
 Arg Ala Asn Trp His Asp His Lys Gly His Pro His Thr Ser Tyr Tyr
 115 120 125
 Gln Tyr Gly Leu Gly Ile Leu Ala Leu Cys Leu His Gln Lys Arg Val
 130 135 140

His Arg Ser Val Val Arg Lys Leu Leu Tyr Ala Val His Leu His His
 145 150 155 160 165 170 175 180 185 190 195 200 205 210
 Gln Gly His His Leu Val Arg Thr Ala Ala Met Ala Gly Leu Ala His
 165 170 175 180 185 190 195 200 205 210 215 220 225 230
 Thr Cys Leu Lys Arg Ser Asn Phe Asn Ile Gly Arg Arg Gln Arg Ile
 180 185 190 195 200 205 210 215 220 225 230 235 240 245
 Thr Met Ala Ile Arg Thr Val Arg Glu Glu Ile Leu Lys Ala Gln Thr
 195 200 205 210 215 220 225 230 235 240 245 250 255 260
 Pro Glu Gly His Phe Gly Asn Val Tyr Ser Thr Pro Leu Ala Leu Gln
 210 215 220 225 230 235 240 245 250 255 260 265 270 275
 Phe Leu Met Thr Ser Pro Met Arg Gly Ala Glu Leu Gly Thr Ala Cys
 235 240 245 250 255 260 265 270 275 280 285 290 295 300
 Leu Lys Ala Arg Val Ala Leu Leu Ala Ser Leu Gln Asp Gly Ala Phe
 245 250 255 260 265 270 275 280 285 290 295 300 305 310
 Gln Asn Ala Leu Met Ile Ser Gln Leu Leu Pro Val Leu Asn His Lys
 260 265 270 275 280 285 290 295 300 305 310 315 320 325
 Thr Tyr Ile Asp Leu Ile Phe Pro Asp Cys Leu Ala Pro Arg Val Met
 275 280 285 290 295 300 305 310 315 320 325 330 335 340
 Leu Glu Pro Ala Ala Glu Thr Ile Pro Gln Thr Gln Glu Ile Ile Ser
 290 295 300 305 310 315 320 325 330 335 340 345 350 355
 Val Thr Leu Gln Val Leu Ser Leu Leu Pro Pro Tyr Arg Gln Ser Ile
 305 310 315 320 325 330 335 340 345 350 355 360 365 370
 Ser Val Leu Ala Gly Ser Thr Val Glu Asp Val Leu Lys Lys Ala His
 325 330 335 340 345 350 355 360 365 370 375 380 385 390
 Glu Leu Gly Gly Phe Thr Tyr Glu Thr Gln Ala Ser Leu Ser Gly Pro
 340 345 350 355 360 365 370 375 380 385 390 395 400 405
 Tyr Leu Thr Ser Val Met Gly Lys Ala Ala Gly Glu Arg Glu Phe Trp
 355 360 365 370 375 380 385 390 395 400 405 410 415 420
 Gln Leu Leu Arg Asp Pro Asn Thr Pro Leu Leu Gln Gly Ile Ala Asp
 370 375 380 385 390 395 400 405 410 415 420 425 430 435
 Tyr Arg Pro Lys Asp Gly Glu Thr Ile Glu Leu Arg Leu Val Ser Trp
 335 390 395 400

<210> 5
 <211> 27067
 <212> DNA
 <213> Human

<220>
 <221> misc_feature
 <222> (1)...(27067)
 <223> n = A,T,C or G

<100> 5
 atatgtatgg qaaataatgct gtcttctctat tccactcccc ccacccctcta gcaatgagtc 60
 caggttaggta ggcagggggg tgtctccctc ctttacttcc acaccctaac taacttgggg 120
 atcagaagtq acctctctgga aggatgtctc tgcctctcac cagaggtctga cgataacgaa 180
 ggcctatctc catggccacc tctccaggcc tgccttccctg gaaataggaa tcataatagt 240
 tgttactgga aacaggcaga gggttggggg adcaaaggca gtcccaccca ggaccaaggt 300
 ggcctccattg cacacacttc accatgactc cctgaagggt ccaaaagtgc ggtctctggg 360
 aagttgggct ccccactgga ctccctctct cctcagaacc tccaggggtg ctctctctag 420
 tggccacata cagcctttct gactggacaa cttatcattt aaaattttca agtagttccg 480
 taacagacaa caagtttctg tatttattta tttnaagggc ttggtttgtg ataagtcagg 540
 ctcaaaaaga ttgtctttaa agagtgaacc ttggcaattt accataaaat aattgcaatg 600
 cagatttggc atggaaatga ttggagatct tttaggta tagtctctc acaatttga 660
 ctgaatggga atgttagga ttatcttacc ttatctctc atctccaca ggaagaacta 720

tttttaaactc gagaggtttaa gtgaggtggg caaagtacaa aggtacaaac tagttaaactc 780
 atataatttg atttccctgt ggggttggg agatgaggaa ttttttggtc ttttccctgt 840
 ttgacagagat tttttttgag gttactttcc aggttctggg aaatccctgt gtttctggta 900
 gttttgtgtc tggatttcaat ctcaattttt ttatttttatt ttatttttga gacagggtct 960
 caattttgtca cccaagtggt agtgaagtggt tgtaatcttg gttcaactgta gctccacct 1020
 attgggtttaa agggatcctc ctgggtcagc cccccaagta gttgggatta cagacgtctg 1080
 agaccaggcc aggtataatt atggtttttt gtatgtgttt tttgtgtttt tgtagagaca 1140
 gtattttccc atgtttgccc ggtgtgtctc caactcctga gctcaagtga tctgcccgc 1200
 tccagccttt aaagtgttag gattacaggt gtgagccacc gtgcctggac ttaatcccat 1260
 tttttaactt gttttgtttt gtctctctca ggaggctccc agcctttctg gattgggtga 1320
 gaaaagtggc ctgggtgggtc tggggccagc agcaccacc ctccctctca ttgcccact 1380
 cccccccca ccgaactgct caactccccc tcccacaact ccccaactcc caccctccac 1440
 aatccctccc ccgcacaaact gagggaggcg gtgtgaaaa acagctgaat ccagccatgc 1500
 tgcctacgtg accaactgcag ctgcagctcc gtttccactc ettgctctgg gttaggtgg 1560
 caataccagg ggtccttttg gtaaggagta ccgggttaggc acccgtctct gccaatccac 1620
 cactgggaca gctgggggga cagcagacag gcacggctgg acagacttga cagatcaggc 1680
 atcagacctt ctgggtgtgt ccgggtctct ttaaggagga acgtgaatgg cctcaagatg 1740
 cctcagatgg tcccacttgc cctcctctct cctttgttcc ctactccag gagggtgtg 1800
 ctgcctctcc tttctctgtt atgttgcctt atgttccctg ccaccacagg ctttccctcc 1860
 ccccaacctt ctgcajaact agcctgcact tgcaggctat gaggattaat cagtgaagg 1920
 aagctgctgc tctcggagcg gtgacacagc tgggtcagga gacctcagc agggccaggc 1980
 ccaggagtct tcccjattc ttgtcactg ctcccccacc tctgtctgc atgaggcaac 2040
 ttggggccct cctctccct ctgggggtcc tgggggacct cactgagatg tctgggtgag 2100
 aactcgcctc tatcctgtgc cctttctctc ctgggtccct agtgggggtg ctagggcata 2160
 ggatgaggga acttaactgc ccttctaagg tcccatagca gtttgggtt agctggacct 2220
 cagcaattaa caactctat ttgtattgah tatatgtttg actcctcacc agacaaagat 2280
 tccgttaact cagtcatttg ttccacactt ctttcagcgc atactgagcc tttctgtggt 2340
 caggccaggt gttagccttt ggjgaacgtg caaagcatga gacaagtcta accctgcca 2400
 tccatagact tatgtctatg jgaaggggga cagacaaaag aaatggttag ggtctccac 2460
 ctgaaatctc agcaatttgg aaggctgagg cgggagggga ggatcgtctg agctcaacag 2520
 ttcaaggtca gctgggca aaataggaga ccccatctct acaaaaaata aaaaaaatta 2580
 aaaaatagct jggcatgggg aagacttctt gaagaccaag aggcacatg jgagctgaaa 2640
 ctogaaggaa gaaaajga jggcaggaan ggagtggggg acacacatc taggcajgag 2700
 gaagtjagcc ttggjaggtc ctgctctctc cagctctgtg ccccaagggg tctctjgag 2760
 cacagtctcc tgggacctgt ctatgagctc gagcttagag jctcagggtc gctcctcag 2820
 acaggaggca gaggjagag ttggggaaat ttgggcctcc caggcgcctt tctcctctc 2880
 ctgcaactag gatttagttg agcaatacac tttcaccccc atggctctct gagacctgg 2940
 ggaaaacctg agjaggtggg jcagctatgt ccaggtgtca agtgaagaag tggagjgtg 3000
 gaggggtgag gtgacccact cagggtctct cactctctcc agagcttgc tgaacttag 3060
 ttttagaact agjagctctg ttgttttctg ttttgncttt tgttgagaga ggttctccc 3120
 ctgttgcctc ggtgtjaggt cagtggcagc atcttggctc actgcagctc ctgccttgg 3180
 ggttcaggtg attcccccac ctccagctcc caagtajctg jagactgcac jggcataact 3240
 ccagcttgg cttaattctg tttttttt tagajacagg jtttgcctat gttgcacag 3300
 ctggtctcga actccgtggc tbaagtgaac ctcttgcctc jgcctcccaa attgtajja 3360
 ttacaggcgt gggccaccc jcccgccacg aactccaaag ctctcatctg tgttccata 3420
 atgcaatcag aaccccaagg tctgggcctc ggaacccac ctcttgggtc atgtccjgac 3480
 agtcccccagg gaggtctctg gttcaaccag caagagctct tctccttggc tgatctjgtc 3540
 ctccagcttg gacagttagt ccatlaacct gaccccaacg gagccccaat ccttggjgt 3600
 ctggggaaac tgaactggg gtttgggtg caaatatctg cactgagtca cttaattgca 3660
 cccagctcca tttctttatc tgtaaagtgg gctaaagatg ctcccttgc tttctctctg 3720
 gtgtagtaac aggaagganc ccatgacacc tctctccca gtttaaaget ctatatgtat 3780
 gttgtgaaat tgacagggat cgtgcacaa accctaagc aaagtgggt cctgtgttcc 3840
 ctattctctt tctctctct tttttttt ttaatttct tctagagatg aggtctcaat 3900
 atattgcctc gggttgggtt caaactccta gggtcaagcg atctcccaac ctgggtctcc 3960
 caaactgctg gtattacag cgtgagccac tctgtctggc tctatgctt gtgaatgtca 4020
 acagcaatca gcttagct ggacgggtg ggttggtagg gcagagctc accccaggc 4080
 gcttttaria cctgcgtga atctgctgg cctctctt ctaaggaggt tctctgtgtg 4140

agacagaggt	ggttgaatg	gggaaggtcc	atctatttaa	aattcaaaa	agtaggtggg	11048
tgtgtgggg	agtaggtgta	acccaggtta	agtaggtgag	aaaggtgagg	aaagaatgt	11109
acttgaactt	agtaggtgaa	ggttgcagtg	agtaggtgag	atggaatgg	actccagttt	11169
gggtgacaga	gtaagactat	gtttcaaaaa	aaaaaaaaaa	aaatggagaa	gaagggaagt	11220
ggacatgggt	gctgtgtgtt	ataatcctag	caetctggga	aggtgaggga	gatggatgtg	11330
ctgagccag	gagtttgaga	ccagcctggg	caacatgggt	aaacccgtgt	tttactaaaa	11340
taagaagat	taggcaggtt	tgggtgtaga	caactataat	ccaggtact	agggagggtg	11400
agccacaaga	atcacttgaa	cctgggagac	agaggttgca	gtgagccag	atcgggcatt	11460
tgcactccag	cctgggagac	agtgtgagac	tctgtctcca	gaaaaaacaa	gaatggatag	11520
agtgagagca	agaagaggca	ggaagaacaa	agacacagag	gtgcacagag	tttgggggaa	11580
cttgaggaa	tgttcttgca	aaagagtggg	atctgggaga	atgagtggga	gtggaaagca	11640
gatgaatgaa	gagaaaggtg	ggcatccagg	gtaacagaga	tgggttgtga	acaaatgcac	11700
gttctaggaa	gagcctctgt	gagtgctagg	tgcacagag	gtgggaggaa	ggatactgga	11760
agcagagaaa	ccagtgaggg	gcttgatctt	gggtggtggg	gaatgaggga	caggggaggt	11820
cggtatggaa	gccaggtggt	ggggaatgag	ggacagggga	ggccgggagt	gaagccaggt	11880
ccagctgag	caggtggcgg	tggpattgat	ggagatgagg	acatggggaa	ggacaaagtc	11940
caggtgtctt	tgaggaaga	caagaagaca	aataatccag	gctctctgtc	ctcacaccag	12000
ctgcctggcc	ctttcttctt	ggcacagcca	tgttggaaac	agctgctgag	acattctctc	12060
agacccaaga	gatcatcagt	gtcacgctgg	aggtgtctag	ctctctggcg	ccgtacagac	12120
agtcctatct	tgttctggcc	gggtccacgg	tgggaagatg	cttgaagaag	gccccatggt	12180
taggaggatt	caogtgagac	ctccactccc	cagtcctcac	cccaacaaac	ctcacatgct	12240
tgataacagg	gtcacagaaa	agacggggaa	cagagggagag	ggttccctcg	ggagagacac	12300
tggccctgct	tctgtctcta	cctgtctcag	ccctctcttg	ccacgggtgt	cttggaaaca	12360
gggagccata	ggccagcatt	gtcacggaga	gagcaggctt	tggaggcaga	gccccccagt	12420
tggaaatcca	actctaacca	gttaggttcc	aggttaggca	ccacaattca	ccgaggagaa	12480
cagttgtgct	ccttccctgc	agggccagtg	tgaagagtc	aggagttagt	acacatagag	12540
atagtggtat	gtgtttttta	tatgtgcaag	gtccagcaca	taggaaagcg	tcaacacagc	12600
gttgcttcca	tcagagtaag	aactgtcttt	tgtctgtctg	cttgtctgtt	tttaagagac	12660
aggtgtccaa	tcttatccac	caggttgagg	tgtaatgtgt	caatcacgtc	ccactgaggt	12720
ctcgaaactct	ggggatgaag	caacccact	gtctgtgctc	agctcccaa	atagctgaga	12780
ctataggcac	gtgcccacaa	acccgggtta	atctttttct	ttttttttct	gagatagggt	12840
ctctgtctgt	tgcgccaggt	ggtctcaaat	ccctggcttc	aaacccatct	caacccctgag	12900
gggtccaaaa	tattgggatt	ataggtgcca	gcccacagtc	tcagccagaa	caataaactg	12960
ctctctctgt	tttttttttg	agacagagtc	ccactctatt	acccaggctc	tggaggccca	13020
actcgtgtct	gtgtatttgt	ctacttttat	ttattttatt	acttcagagc	agagccctct	13080
ctctccact	aggtcgaggt	gtagtggcgc	aactctgggt	cactgcaaac	tcctctctct	13140
gggttcaagt	gattgtctct	cctcagcttc	ctgagttagt	ggtgtctacg	gcgctgcca	13200
ccatgcacag	ctaatttttg	tatttttajt	agagacaggg	ttttactatg	tggccagct	13260
ggtttctaac	tcctgaactc	gggtgactgt	cctgctctgg	cctcccaaa	tgtctgggatt	13320
acagtcacgg	tcctcctgtc	cgggcactgt	atttatttag	gcaaggtctc	tcctctgtat	13380
ccagctcgaa	gtgcagtggc	acatctcatg	ctcactgcaq	cctcaaatca	tccaaagtaac	13440
agggactaca	ggcatgcacc	accacaccca	ctcacttttt	tctgagatgg	agtctccctc	13500
tgtcgcacag	actgggttgc	agtggcacaa	tttcagctca	tggcagcacc	tacctcccag	13560
gttcaagcga	ctctccttcc	tcagctctcc	gagttagctg	gaactatggc	atgcaccacc	13620
atacctggtt	aatgtttata	ttttgagtat	agatgggaat	ttgcctattt	ggccaggtct	13680
gtcttgagct	cttgacctca	agtgatattt	ctgctcagtt	nnnnnnnnnn	nnnnnnnnnn	13740
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	13800
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	13860
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	13920
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	13980
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14040
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14100
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14160
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14220
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14280
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14340
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14400

65

66

aagagactc atgataccat caactatggg attagatatt aacatataca ttttgggggg 21300
 aacagacat ttttagacat agaatctcca ttgaagggaa acattttct ja caactgggaa 21360
 tttcaaaaagg ctttttcaat tttatggaa gotaatct caatcacaa accagagca 21420
 agagactcac tcaagaggtta aataatttgt ccaaggtcaa agcagtaatg aatgacagag 21480
 ctgggggttg aatccaggcg tctctctaga gcttggatc tgtgtagtga gtgaaagctg 21540
 actctctggga gaattctgog tggctctggg tctgtctcca gaactgcactg cccaagtttt 21600
 tcttctctgat ggtctctagg gtattacaaa gacagtggg ctgctctgca ggtgttttta 21660
 ttaccagatg aggtcatggc ctccaggaac ctgtaggaaq ctgagttcag agtctttgag 21720
 caggcttttag ggaggttcca gcttcccacc accaagcccc aggtggattc ttacagactc 21780
 tagcttcagg gtgggggggtc tggaaagatga ggttgggggg tgcgatattc tgccccattc 21840
 gccctctctt gctcaactct tttctgcagg tattgtctga tacagaccca aggatggaga 21900
 aaccattgag ctgaggtctg ttatgtggta gccctctgag tctctctacc cagcagcttc 21960
 gcacactccc taggtctcta cctctctctc tgatgtctct ggaacaggaa ctgctctgac 22020
 cctgctgcca cctctctgta acttttagca atgccccctg ggatcaccac agccacaagg 22080
 cttctgaggg ccttatacca tggcccacct tggagcagag agccaagcat ctctctctgg 22140
 aagtcttctt ggccaaagtct ggccagctct gctctgcagg tctctctga aggccaccac 22200
 atggtctgat gggtctgaag catctcagac tctctggcaa aaaacggagt ccgagggctg 22260
 cagggtctgt ggaagacact cgtctctgtg ttggggctct gcaagaaggc ctctctagcc 22320
 cgggggctat ggccctgacc ccagctctcc actctgctgt tagagtggca gctccagact 22380
 ggtctgggga ggtctgctga ggagacctca gcagggctgc ccagtgcctg cctctgacaa 22440
 aattaaagca tctatggctc gggagctctg taagtgggcc tgggtctcca taactctcag 22500
 gtgcaggggg agggacaaga gaagggggaa gtaaccctat cagggaggag tggaggtctg 22560
 ctgagccggc atgtgggcat tgggggagtg atgggaatgc cagcagtgat gacgttgaat 22620
 actgactgag caccacactac tatgactgag cactcactcg ctgatacta tcttgaactg 22680
 cctctgtagg tcttgatat tttcattttt atctgtgctt tacaatcag gaaactggga 22740
 ggccggggct ggtggtctac gctgtcaatc ccagcactct agggaggcaa ggcaggtgga 22800
 tcacaaggtc aggtgtttga gatcagctcg gccaacatgg tgaaactcca tctttactaa 22860
 aaatacaaaa aatcagccag gcctgggtct gcctgctgc atgctctgaa tcccagttac 22920
 ttgggaagct gaggcaagg ttgcactcca gcttgggcaa aacctggagg cggaggttgc 22980
 gatcagggca ttgcactcca gcttgggcaa gaagagaac actctcaaaa aaaaaaiaaa 23040
 atcagjaaa ttgtgtctca aaggjaaaag gactcacca aggtcacaga ctaggccagc 23100
 atgctggggg aacttggctc aggggacaca gacttggct taatcttat gcaagcccc 23160
 cactcaaaat actgaaatg aggggtctcg atgtgggta ctctctgctt tctcacagg 23220
 aactcaactg gacccctggg accagaaagc taggtctcca ctctctgctt tctcacagg 23280
 caccatcagg gcactacccc aggcctctgg agccacagc cagggatctt gctctcact 23340
 ggttggggg ttagggtctc tgggtctgca tcttgaagag ggggtctcag ccagcagctg 23400
 accctctatg ctgcacccca ccaaggtctg gaaaggtct tgtctcagc ggggtctct 23460
 gatgaacagc ccatcaggtc tgcgtccaca tgccttggaa gagatggtga cactctcaaa 23520
 gtctctgaag ccgcatatta aaccacctag agcaccatct tcaaacattt aggtctgag 23580
 aagatagggg aagtaaggaa tttaaaact ctctctatat tgggcagggt gaactggct 23640
 aggtctgtaa tcccaggtct tgggaggac gaggatcacc tgaggccag agtccagat 23700
 cagcctgggc aacatggaga aaccacatct ctactaaaaa tacaiaaact agtccagga 23760
 ttgtgagtgt cactgttaat cctagctatt caggaggctg aggaacaaga attgcttga 23820
 tcaatattgc accactgcac tccagctctg gcaacagoga gactctgtc tcaaaaiaa 23880
 aaaaayatat ttgtgaaaa gaccagctct gcaiaactca ggggcagcc agggagtag 23940
 tgaaatggaa gttggagctc agcgtcccca cactctcact ggcctcagg ctctctctga 24000
 tcttcccat cagtacgtct ctctctggga tggcctctgc agagaattcg ctctcttcca 24060
 gttcaagctc cctcttagat tgttcccacc gcactcagt ctctgggaca ctgggtcaga 24120
 tctctagct ggccacaattg gcaggaaatc caagaaacag tctgagtga gggacagtc 24180
 tcttgagtc cctctatctg ggaactggag gcaggtctat gtcaggctct cacttagat 24240
 totaatggct ccagacaagg ccttctagct cactaagctt atccatggt atccatggt 24300
 gatgggtgct tggtttcaat agcacgcat accatcatag atccatggt gaaactgag 24360
 ccccaaggat gattctgtgg cactctcagt gacaagagga gaggtccatc tcaagctga 24420
 agcaagggtg ccagaaatcg attctgccc ccatccctga aagatagctg ggattacag 24480
 tgtgcaccac catgcccage ctaattttct tattattagt aga-jatggg ttccaccatg 24540
 ttgtccaggg tggctcatgaa ctctgacct caagtgaat acccgctttg gctctccaaa 24600
 gtgctgggat tacaagcatg agccacagt cctggctga cctgctctt ttgaaagacc 24660

```

atcagcctaa attctgtgca catggttgc tttcttccct ctgactctctc tccagctctgc 24720
caggtatctc tcccttctcc tctggtaaat tcaactatct tcttgaagac ctctcttccau 24780
gggaagcctc gatcatgctc ctctctctcg ttgagagggat gaaggagcgc gccacacggag 24840
cttctcttctc ttctgttttca gatcgagttc tgcctatggt gccacaggctc gggtagaatg 24900
tccagctctc agctcactgc aacctctacg tccggggttc aaggcgttct cctgccttag 24960
ctcctcaggt agctgggact actgcatga accaccacac ctggctaatc ttgtgttttt 25020
agttagagatc gggttttctc atgttggta ggtgggtctc gaactctaa cctcaggtga 25080
ctcagctgac tggcctccc aaagtaactg gattacaggg ttgagcact glgcctggcc 25140
caggctcagc gagtthtaag aggttctctg tggcagtgcc atccagacgc agtgccagaaa 25200
ctcagagttg aaggccagaa gctcagggaa gggggagtg gagttgagga gtctcttggc 25260
tccaggggac agaaaccgaa ctccaaagct ctccacaaca gggggtgtag agcatgtaga 25320
atccagagagc aggtctagac atgcagcccc gagaagaggg gaatgcact gagccacaga 25380
gacccagtgcc cactgcccagc cgtctctgac tccacttccc atgaccgggc ctgtctctgt 25440
atgcaggtct caccctctct cgtctctacat tgtacacatt ctaggtgaca ccagcagctc 25500
ctgattctca tctcccataa catcagcccc ccagagaggg gacaactgct gagggtataa 25560
cataatgact gccctttctc tggagggcat ggtcatggtc agcgtggaga ggtgaagcc 25620
tgagcagga ggtctggggc cttagagggc aaggagtgga aagttgagat cacagacctg 25680
tggctcaggtg gctggggaag ggtctgagga ggtctggccc aaagagcttg gaaggatct 25740
tggctctgtg ggtgagcact gctctctccc ttagggacaa cagccacctc tctctctccc 25800
attgctcttt cctctctgta gatatgaac acaggcctcc ttgtcaggcc cctacttaac 25860
ctcgtgtatg gggaaagggc ccggagaaag ggagctctgg cagcttctcc gagccccaa 25920
caccaccactg ttgcaaggtg agtcatgccc tgacactctg gatgtgtccc ctacccccag 25980
cttactcagc caagaggtct catcaactca cccagcttt cctagacacc ctctctgggc 26040
acaccttccac aaatcactg atgctcaag ttggatataa tatattgaac tgaagcctta 26100
gcatttttat gcaagttact gtggaaatto taggaaacca gacagattac aaaaaaaaaa 26160
aaaaactaga agaaaattaa catcacctag gatatactac ctagggaataa cgtctcttat 26220
tttgagatgg agttctgctc ttgttgccaa ggtgggagtg cagcgggtatg atctcggctc 26280
gttgcaacct ccgctctctg ggtctatgtg attctctcac ctgggccttc ctajagccca 26340
agtggctctg ctgctctctg ctcccaagt tctgggatta caggcatgag ccacccgccc 26400
cagccaaaat cacttaacct cctctctaga tactttttaa aaatatggca gtaagttct 26460
cataaaaaat ggagccatgc catccagtg aaatttaatg ttgccacac gtataaacta 26520
aaaatttcat atatgtgtat acctatatat gaaatatata tatacagaca cacatatata 26580
tgtatacata tatatacaca tatatatgta tacatatata cacacatata tgtatacata 26640
tatatacaca tatatacaca tatatacaca cacatacata tatacacaca catatatata 26700
cacatatata cacatagca cacatatata tgtatacata tatacacaca tgtatacgt 26760
tatatacaca catatatata cacatatata tacacacata tacacacata cacacacata 26820
tatatacaca tatatacaca catatatata cacatatata tgtatacata tatatacaca 26880
catatatata cacacacaca tacatatata cacatatata catatacaca cacatatata 26940
cacatgtata catatatata cacacatgta tacatatgta tacacacaca tatatgtata 27000
catatatata cacatatata tgtgtacata tatacacaca tacatatgta tacatatata 27060
cacatcat

```

<10> 6
 <11> 427
 <12> PRT
 <13> Human

```

<100> 6
Met Arg His Leu Gly Ala Phe Leu Phe Leu Leu Gly Val Leu Gly Ala
      5              10              15
Leu Thr Glu Met Cys Glu Ile Pro Glu Met Asp Ser His Leu Val Glu
      20              25              30
Lys Leu Gly Gln His Leu Leu Pro Trp Met Asp Arg Leu Ser Leu Glu
      35              40              45
His Leu Asn Pro Ser Ile Tyr Val Gly Leu Arg Leu Ser Ser Leu Gln
      50              55              60
Ala Gly Thr Lys Glu Asp Leu Tyr Leu His Ser Leu Lys Leu Gly Tyr

```

65	10	25	80
Gln Gln Cys Leu Leu Gly Ser Ala Phe Ser Glu Asp Asp Gly Asp Cys			
85	90	95	
Gln Gly Lys Pro Ser Met Gly Gln Leu Ala Leu Tyr Leu Leu Ala Leu			
100	105	110	
Arg Ala Asn Cys Glu Phe Val Arg Gly His Lys Gly Asp Arg Leu Val			
115	120	125	
Ser Gln Leu Lys Trp Phe Leu Glu Asp Glu Lys Arg Ala Ile Gly His			
130	135	140	
Asp His Lys Gly His Pro His Thr Ser Tyr Tyr Gln Tyr Gly Leu Gly			
145	150	155	160
Ile Leu Ala Leu Cys Leu His Gln Lys Arg Val His Asp Ser Val Val			
165	170	175	
Asp Lys Leu Leu Tyr Ala Val Glu Pro Phe His Gln Gly His His Ser			
180	185	190	
Val Asp Thr Ala Ala Met Ala Gly Leu Ala Phe Thr Cys Leu Lys Arg			
195	200	205	
Ser Asn Phe Asn Pro Gly Arg Arg Gln Arg Ile Thr Met Ala Ile Arg			
210	215	220	
Thr Val Arg Glu Glu Ile Leu Lys Ala Gln Thr Pro Glu Gly His Phe			
225	230	235	240
Gly Asn Val Tyr Ser Thr Pro Leu Ala Leu Gln Phe Leu Met Thr Ser			
245	250	255	
Pro Met Arg Gly Ala Glu Leu Gly Thr Ala Cys Leu Lys Ala Arg Val			
260	265	270	
Ala Leu Leu Ala Ser Leu Gln Asp Gly Ala Phe Gln Asn Ala Leu Met			
275	280	285	
Ile Ser Gln Leu Leu Pro Val Leu Asn His Lys Thr Tyr Ile Asp Leu			
290	295	300	
Ile Phe Pro Asp Cys Leu Ala Pro Arg Val Met Leu Glu Pro Ala Ala			
305	310	315	320
Glu Thr Ile Pro Gln Thr Gln Gln Ile Ile Ser Val Thr Leu Gln Val			
325	330	335	
Leu Ser Leu Leu Pro Pro Tyr Arg Gln Ser Ile Ser Val Leu Ala Gly			
340	345	350	
Ser Thr Val Glu Asp Val Leu Lys Lys Ala His Glu Leu Gly Gly Phe			
355	360	365	
Thr Tyr Glu Thr Gln Ala Ser Leu Ser Gly Pro Tyr Leu Thr Ser Val			
370	375	380	
Met Gly Lys Ala Ala Gly Glu Arg Glu Phe Trp Gln Leu Leu Arg Asp			
385	390	395	400
Pro Asn Thr Pro Leu Leu Gln Gly Ile Ala Asp Tyr Arg Pro Lys Asp			
405	410	415	
Gly Glu Thr Ile Glu Leu Arg Leu Val Ser Trp			
420	425		

1101: 7
 1111: 427
 1121: PRT
 1131: Human

1400: 7
 Met Arg His Leu Gly Ala Phe Leu Phe Leu Leu Gly Val Leu Gly Ala
 1 5 10 15
 Leu Thr Glu Met Cys Glu Ile Pro Glu Met Asp Ser His Leu Val Glu
 20 25 30

Lys Leu Gly Gln His Leu Leu Pro Trp Met Asp Arg Leu Ser Leu Gln
 55 40 45
 His Leu Asn Pro Ser Ile Tyr Val Gly Leu Arg Leu Ser Ser Leu Gln
 50 55 60
 Ala Gly Thr Lys Glu Asp Leu Tyr Leu His Ser Leu Lys Leu Gly Tyr
 65 70 75 80
 Gln Gln Cys Leu Leu Gly Ser Ala Phe Ser Glu Asp Asp Gly Asp Cys
 85 90 95
 Gln Gly Lys Pro Ser Met Gly Gln Leu Ala Leu Tyr Leu Leu Ala Leu
 100 105 110
 Arg Ala Asn Cys Glu Phe Val Arg Gly His Lys Gly Asp Arg Leu Val
 115 120 125
 Ser Gln Leu Lys Trp Phe Leu Glu Asp Glu Lys Arg Ala Ile Gly His
 130 135 140
 Asp His Lys Gly His Pro His Thr Ser Tyr Tyr Gln Tyr Gly Leu Gly
 145 150 155 160
 Ile Leu Ala Leu Cys Leu His Gln Lys Arg Val His Asp Ser Val Val
 165 170 175
 Asp Lys Leu Leu Tyr Ala Val Gln Pro Phe His Gln Gly His His Ser
 180 185 190
 Val Asp Thr Ala Ala Met Ala Gly Leu Ala Phe Thr Cys Leu Lys Arg
 195 200 205
 Ser Asn Phe Asn Pro Gly Arg Arg Gln Arg Ile Thr Met Ala Ile Arg
 210 215 220
 Thr Val Arg Glu Gln Ile Leu Lys Ala Gln Thr Pro Glu Gly His Phe
 225 230 235 240
 Gly Asn Val Tyr Ser Thr Pro Leu Ala Leu Gln Phe Leu Met Thr Ser
 245 250 255
 Pro Met Arg Gly Ala Glu Leu Gly Thr Ala Cys Leu Lys Ala Arg Val
 260 265 270
 Ala Leu Leu Ala Ser Leu Gln Asp Gly Ala Phe Gln Asn Ala Leu Met
 275 280 285
 Ile Ser Gln Leu Leu Pro Val Leu Asn His Lys Thr Tyr Ile Asp Leu
 290 295 300
 Ile Phe Pro Asp Cys Leu Ala Pro Arg Val Met Leu Glu Pro Ala Ala
 305 310 315 320
 Glu Thr Ile Pro Gln Thr Gln Gln Ile Ile Ser Val Thr Leu Gln Val
 325 330 335
 Leu Ser Leu Leu Pro Pro Tyr Arg Gln Ser Ile Ser Val Leu Ala Gly
 340 345 350
 Ser Thr Val Glu Asp Val Leu Lys Lys Ala His Glu Leu Gly Gly Phe
 355 360 365
 Thr Tyr Glu Thr Gln Ala Ser Leu Ser Gly Pro Tyr Leu Thr Ser Val
 370 375 380
 Met Gly Lys Ala Ala Gly Glu Arg Glu Phe Trp Gln Leu Leu Arg Asp
 385 390 395 400
 Pro Asn Thr Pro Leu Leu Gln Gly Ile Ala Asp Tyr Arg Pro Lys Asp
 405 410 415
 Gly Glu Thr Ile Glu Leu Arg Leu Val Ser Trp
 420 425